

Trend Study 25A-7-99

Study site name: Evans Reservoir .

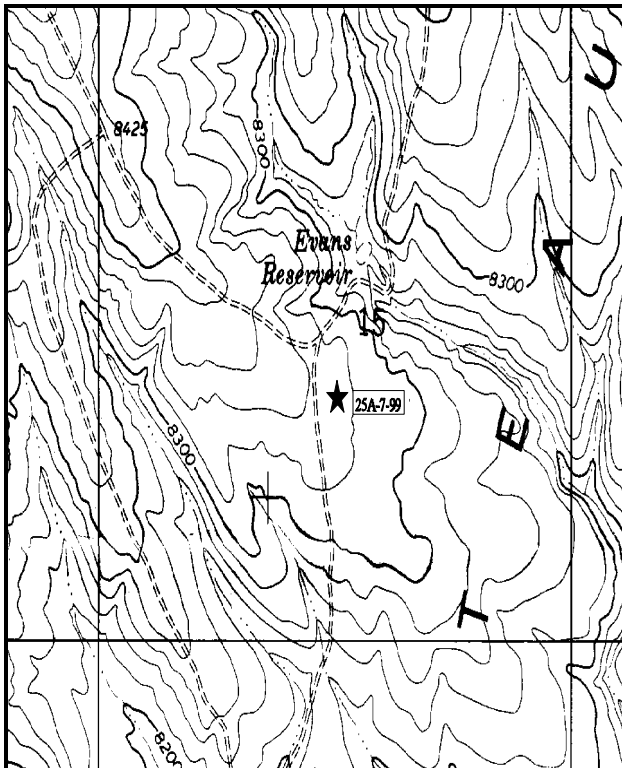
Range type: Big Sagebrush-Grass .

Compass bearing: frequency baseline 180°M.

Footmark (first frame at) 5 feet, footmarks (frequency belts) line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft).

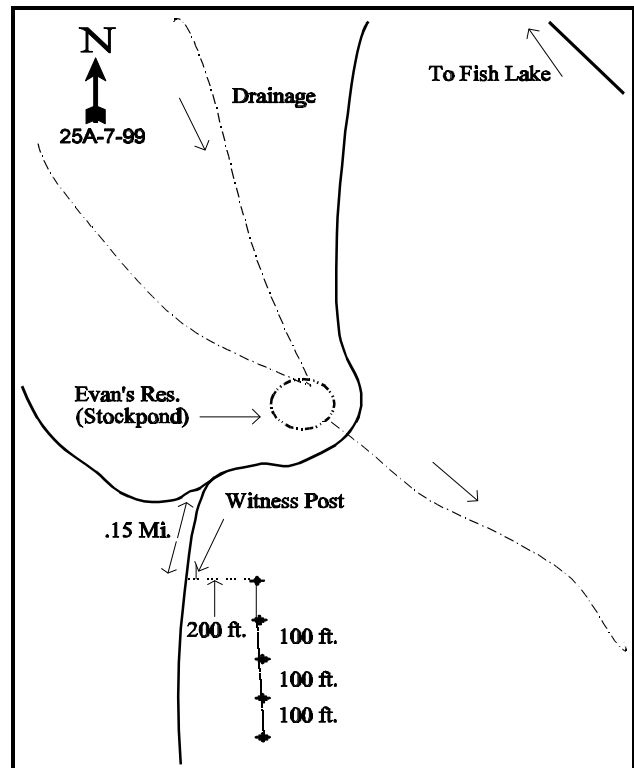
LOCATION DESCRIPTION

Heading northwest out of Loa on U-24, turn right at mile marker 45. Go 3.5 miles to a green and yellow fence post on the left (20 feet off the road). Continue about 0.1 miles past the fence post and turn left. Go 1.55 miles past a stock pond and up to a fork. Turn left at the fork and go 0.15 miles to a steel rebar witness post on the left side of the road. From the witness post, walk 200 feet east to the 0-foot baseline stake, a rebar with browse tag #7122.



Map Name: Abes Knoll, Utah

Township 27S , Range 1E , Section 15



Diagrammatic Sketch

UTM 4256930.133 N, 431156.974 E

## DISCUSSION

### Trend Study No. 25A-7 (44-1)

The Evans Reservoir study is located on one of the open rolling ridges of the Awapa Plateau at an elevation of 8,300 feet. The transect is on a relatively flat ridge top within a sagebrush-grass community with a slope of about 6% and a northeast aspect. Pipe harrow treatments were done in the past to many large tracks of sagebrush near the site. A portion of the first 100 feet of the transect had been pipe harrowed when the transect was read in 1999. Sheep graze the area in the spring and fall. Wildlife use is predominately pronghorn antelope, although mule deer will use the site during some winters. Both antelope and sage grouse were observed in the area in 1991. Elk use appears to be increasing as 51 elk days use/acre were estimated from the pellet transect data in 1999. Deer and antelope use combined is currently estimated at 16 days use/acre (40 days use/ha) with most of this probably coming from antelope. The pellets from these two species were difficult to distinguish differences. Sage grouse droppings were also encountered in 1999. Rabbit use is high in the area as well with over 200 groups sampled in 1999. Evans Reservoir, a small stock pond located 1/4 mile to the north, is an important water source for the area.

Soils are densely compacted and quite shallow with an estimated effective rooting depth of only 9 inches. Texture is a sandy loam with a neutral pH (7.1). Organic matter is low at 1.7%. Phosphorus (8.8 ppm) is slightly lower than the 10 ppm minimum shown necessary for normal plant growth and development. A calcium carbonate layer is present within the profile at about 10 inches below the surface, which could be restrictive to root development. The vegetation is widely dispersed, with little bare soil sampled in 1985. By 1991, bare soil was estimated at 23% which is probably an overestimation as bare ground dropped to 11% in 1999. Pavement cover has been high in all years, currently estimated at 25%. Vegetation and litter cover together provide 60% of the cover at the site. There is some evidence of wind erosion and wind-scoured depressions, with slight pedestaling occurring around the base of sagebrush.

Browse composition is dominated by a mix of mountain big sagebrush and black sagebrush. Mountain big sagebrush currently contributes to 57% of the browse cover. It had a moderately high density estimated at 6,266 plants/acre in 1985, 4,732 plants/acre in 1991, and 4,360 plants/acre in 1999. The mountain big sagebrush has shown moderate to heavy use in all three sampling years, however vigor has generally been generally good. Percent decadency is high at 53% in 1999, an increase from 28% in 1991. Much of this decadency is due to plants that were pipe harrowed on the first belt of the sampling transect. Presently, 25% of the decadent plants are classified as dying, a decrease from 60% in 1991. The current age structure points to a declining population with high decadency, and more decadent dying plants than young or seedlings to replace them. Leader growth on mountain big sagebrush varied from 4 to 8 inches in 1999. Black sagebrush is second in abundance to mountain big sagebrush, and is currently estimated at 4,140 plants/acre. This represents a 36% increase from the 1991 estimate. Much of this difference would be due to the extension of the baseline in 1999 accompanying the new methods which has increased the sample size for browse by a factor of more than three times. However, this gives significantly more accurate measurements for discontinuous distributions of browse like black sagebrush. Black sagebrush consists mostly of mature (51%) and decadent plants (43%), with 56% of the decadent plants classified as dying. The current decadency rate is actually the lowest since the transect was established in 1985. Use is mostly light to moderate, with poor vigor displayed on 23% and 24% of the population respectively in 1991 and 1999. Recruitment and biotic potential are currently relatively low for black sagebrush.

Perennial native grasses dominate the understory by providing 42% of the total vegetation cover at the site. Currently, muttongrass and bluebunch wheatgrass are the most abundant. Bluebunch wheatgrass significantly increased in sum of nested frequency in 1999, while muttongrass slightly decreased. Other species include: pinewoods needlegrass, blue grama, bottlebrush squirreltail, and a Carex. The grasses had received little use when the site was read in August 1999. Grasses make up a small percentage of the diet of antelope in Utah except during the new flush of growth each spring.

The forbs observed are quite diverse, but with low quadrat frequencies. Antelope are known to utilize some of these in summer, especially *Astragalus sp.*, *Lotus sp.*, *Eriogonum racemosum*, and *Linum lewisii* (Smith and Beale 1980). Smith and Beale (1980) also thought that antelope on the Awapa Plateau may feed on the abundant lichens. The most abundant forbs are timber poisonvetch and desert phlox which currently provide 73% of the forb cover.

#### 1985 APPARENT ASSESSMENT OF TREND

Soil trend appears stable. There is little erosion because of the pavement and litter cover. The data indicate a downward vegetative trend. There are few young or seedlings in the mountain big sagebrush or black sagebrush populations with their form and vigor appearing to decline. Several increaser species, narrowleaf low rabbitbrush, broom snakeweed, pricklypear cactus, and desert phlox are present in rather low numbers, although they could increase with a decline of the sagebrush population. The grasses appear stable.

#### 1991 TREND ASSESSMENT

Soil trend appears to be declining. Pavement and rock cover declined from 55% to 37%, while cover for bare ground increased from 8% to 23%. Litter cover increased slightly. The key browse species, mountain big sagebrush, did decrease in density since 1985 by 24%, while percent decadency decreased from 47% to 28%. However, 60% of the decadent plants (1,333 plants/acre) were classified as dying. The percentage of the population in the young and mature age classes improved respectively from 3% to 10% and 50% to 62%. Another important aspect of this population is that with the decrease in density which was already too high, shrub size for mature plants has increased for both width and height. The effective volume of each plant, on average, has almost doubled. Trend for browse would be considered slightly down. The herbaceous understory trend is improved. Bluebunch wheatgrass was not even recorded in 1985, but it now has a quadrat frequency of 27%. Mutton bluegrass, bottlebrush squirreltail, and pinewoods needlegrass have increased also. They had quadrat frequency changes respectively of 63% to 76%, 28% to 50%, and 39% to 68%. Most of the forbs also had increasing quadrat sum of frequency values.

##### TREND ASSESSMENT

soil - declining

browse - slightly downward

herbaceous understory - slightly improved

#### 1999 TREND ASSESSMENT

Trend for soil is stable to slightly improved. Vegetation and litter cover combined provide more than 60% of the cover. Bare ground is low at 11%, with pavement is high at 25%. Erosion is minimal with the gentle slope. Trend for the key browse is slightly down. Mountain big sagebrush looks to decrease in the future with a high rate of decadent plants (53%), and more decadent dying plants than young in the population. Use continues to be moderate to heavy. Black sagebrush also shows high decadency at 43%, with 56% of these classified as dying. Nearly one-fourth of the population displays poor vigor. Recruitment and biotic potential of black sagebrush are low. Trend for the herbaceous understory is slightly down. Sum of nested frequency for perennial grasses and forbs decreased by 17% in 1999.

##### TREND ASSESSMENT

soil - stable to slightly improved

browse - slightly down

herbaceous understory - slightly down

HERBACEOUS TRENDS --  
Herd unit 25A, Study no: 7

Type	Species	Nested Frequency			Quadrat Frequency			Average Cover % '99
		'85	'91	'99	'85	'91	'99	
G	Agropyron spicatum	<sub>a</sub> 2	<sub>b</sub> 51	<sub>c</sub> 127	1	27	54	4.24
G	Bouteloua gracilis	37	40	50	18	16	23	.65
G	Carex spp.	<sub>ab</sub> 6	<sub>a</sub> 4	<sub>b</sub> 18	5	2	10	.56
G	Oryzopsis hymenoides	<sub>a</sub> -	<sub>ab</sub> 2	<sub>b</sub> 7	-	2	3	.33
G	Poa fendleriana	<sub>a</sub> 136	<sub>b</sub> 168	<sub>ab</sub> 139	63	76	60	4.73
G	Poa secunda	<sub>b</sub> 44	<sub>a</sub> 16	<sub>a</sub> 10	20	8	4	.09
G	Sitanion hystrix	<sub>b</sub> 62	<sub>c</sub> 119	<sub>a</sub> 25	28	50	15	.71
G	Stipa comata	<sub>a</sub> -	<sub>a</sub> -	<sub>b</sub> 5	-	-	4	.21
G	Stipa pinetorum	<sub>a</sub> 81	<sub>b</sub> 142	<sub>a</sub> 97	39	68	40	1.47
Total for Annual Grasses		0	0	0	0	0	0	0
Total for Perennial Grasses		368	542	478	174	249	213	13.02
Total for Grasses		368	542	478	174	249	213	13.02
F	Androsace septentrionalis (a)	-	-	29	-	-	13	.19
F	Arabis demissa	<sub>b</sub> 62	<sub>a</sub> 19	<sub>a</sub> 3	30	11	1	.00
F	Astragalus convallarius	<sub>a</sub> 6	<sub>a</sub> 14	<sub>b</sub> 71	4	8	34	2.23
F	Aster spp.	-	1	-	-	1	-	-
F	Astragalus spp.	1	-	-	1	-	-	-
F	Castilleja chromosa	<sub>a</sub> -	<sub>b</sub> 5	<sub>a</sub> -	-	3	-	-
F	Chaenactis douglasii	<sub>a</sub> -	<sub>b</sub> 3	<sub>b</sub> 8	-	3	4	.02
F	Comandra pallida	-	-	4	-	-	2	.06
F	Cryptantha spp.	<sub>b</sub> 58	<sub>b</sub> 68	<sub>a</sub> 17	30	36	7	.25
F	Eriogonum alatum	-	-	2	-	-	1	.00
F	Erigeron pumilus	3	1	5	1	1	2	.01
F	Eriogonum racemosum	-	-	1	-	-	1	.01
F	Eriogonum umbellatum	14	11	10	6	7	4	.21
F	Lactuca serriola	-	3	-	-	1	-	-
F	Linum lewisii	<sub>a</sub> 1	<sub>a</sub> 17	<sub>b</sub> 29	1	7	14	.30
F	Lotus utahensis	<sub>c</sub> 55	<sub>a</sub> -	<sub>b</sub> 16	26	-	9	.36
F	Phlox austromontana	<sub>a</sub> 67	<sub>b</sub> 130	<sub>a</sub> 101	30	61	44	1.83
F	Phlox longifolia	<sub>b</sub> 9	<sub>b</sub> 19	<sub>a</sub> -	5	9	-	-
F	Sanguisorba minor	<sub>b</sub> 6	<sub>a</sub> -	<sub>a</sub> -	5	-	-	-
F	Senecio multilobatus	<sub>a</sub> 3	<sub>b</sub> 61	<sub>a</sub> 6	1	31	4	.05
F	Streptanthus cordatus	<sub>a</sub> -	<sub>b</sub> 5	<sub>a</sub> -	-	3	-	-
F	Trifolium spp.	<sub>a</sub> -	<sub>c</sub> 13	<sub>b</sub> 5	-	9	3	.01
F	Unknown forb-perennial	<sub>b</sub> 20	<sub>a</sub> -	<sub>a</sub> -	10	-	-	-
F	Zigadenus paniculatus	2	-	-	1	-	-	-
Total for Annual Forbs		0	0	29	0	0	13	0.19

Type	Species	Nested Frequency			Quadrat Frequency			Average Cover %
		'85	'91	'99	'85	'91	'99	
	Total for Perennial Forbs	307	370	278	151	191	130	5.38
	Total for Forbs	307	370	307	151	191	143	5.57

Values with different subscript letters are significantly different at  $\alpha = 0.10$  (annuals excluded)

#### BROWSE TRENDS --

Herd unit 25A, Study no: 7

Type	Species	Strip Frequency	Average Cover %
		'99	'99
B	Artemisia nova	65	6.79
B	Artemisia tridentata vaseyana	85	9.89
B	Chrysothamnus viscidiflorus	30	.46
B	Coryphantha vivipara	1	-
B	Eriogonum corymbosum	1	.03
B	Eriogonum microthecum	3	.06
B	Gutierrezia sarothrae	1	-
B	Leptodactylon pungens	18	.09
B	Opuntia spp.	1	-
B	Symphoricarpos oreophilus	0	-
	Total for Browse	205	17.33

#### BASIC COVER --

Herd unit 25A, Study no: 7

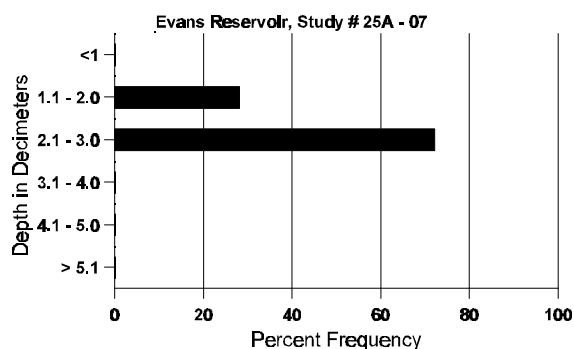
Cover Type	Nested Frequency	Average Cover %		
		'85	'91	'99
Vegetation	306	11.00	8.75	35.34
Rock	96	0	4.00	1.35
Pavement	325	54.75	33.00	25.01
Litter	341	26.25	30.25	25.26
Cryptogams	12	.50	1.00	.08
Bare Ground	245	7.50	23.00	10.93

#### SOIL ANALYSIS DATA --

Herd Unit 25A, Study # 07, Study Name: Evans Reservoir

Effective rooting depth (inches)	Temp °F (depth)	pH	%sand	%silt	%clay	%OM	PPM P	PPM K	dS/m
9.3	57.0 (9.0)	7.1	59.3	21.4	19.3	1.7	8.8	217.6	1.2

## Stoniness Index



### PELLET GROUP FREQUENCY --

Herd unit 25A, Study no: 7

Type	Quadrat Frequency 09	Pellet Transect Days Use/Acre (ha) 09
Rabbit	45	n/a
Elk	38	51(126)
Deer	5	16(40)
Antelope	1	0

### BROWSE CHARACTERISTICS --

Herd unit 25A, Study no: 7

Rep. Unit 2341, Study No. 7																			
A Y G R E	Form Class (No. of Plants)										Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total	
		1	2	3	4	5	6	7	8	9	1	2	3	4					
Artemisia nova																			
S	85	3	-	-	-	-	-	-	-	-	3	-	-	-	200			3	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	3	-	-	1	-	-	-	-	-	4	-	-	-	80			4	
Y	85	2	-	-	-	-	-	-	-	-	2	-	-	-	133			2	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	8	3	-	1	-	-	-	-	-	12	-	-	-	240			12	
M	85	4	10	7	-	-	-	-	-	-	21	-	-	-	1400	10	9	21	
	91	6	14	-	1	-	-	-	-	-	21	-	-	-	1400	8	16	21	
	99	49	51	3	-	2	-	-	-	-	105	-	-	-	2100	11	19	105	
D	85	-	10	23	-	-	-	-	-	-	27	-	-	6	2200			33	
	91	3	16	-	-	-	-	-	-	-	10	-	-	9	1266			19	
	99	48	29	-	3	7	-	3	-	-	40	-	-	50	1800			90	
X	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	320			16	
% Plants Showing		<u>Moderate Use</u>				<u>Heavy Use</u>				<u>Poor Vigor</u>				<u>%Change</u>					
'85		36%				54%				11%				-29%					
'91		75%				00%				23%				+36%					
'99		44%				01%				24%									
Total Plants/Acre (excluding Dead & Seedlings)														'85	3733	Dec:	59%		
														'91	2666		47%		
														'99	4140		43%		

A G R E	Y R E	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Artemisia tridentata vaseyana																		
S	85	8	-	-	-	-	-	-	-	-	8	-	-	-	533		8	
	91	-	-	-	-	-	-	4	-	-	4	-	-	-	266		4	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	85	3	-	-	-	-	-	-	-	-	3	-	-	-	200		3	
	91	7	-	-	-	-	-	-	-	-	7	-	-	-	466		7	
	99	14	8	-	-	-	-	-	-	-	22	-	-	-	440		22	
M	85	11	35	1	-	-	-	-	-	-	44	-	3	-	3133	15 21	47	
	91	2	22	20	-	-	-	-	-	-	44	-	-	-	2933	18 26	44	
	99	14	54	10	1	1	-	-	-	-	76	2	2	-	1600	17 29	80	
D	85	6	29	9	-	-	-	-	-	-	39	-	3	2	2933		44	
	91	1	12	4	-	1	-	2	-	-	8	-	-	12	1333		20	
	99	29	71	10	2	1	1	2	-	-	86	-	1	29	2320		116	
X	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	580		29	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		68%			11%			09%			-24%							
'91		49%			34%			17%			- 8%							
'99		62%			10%			15%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	6266	Dec:	47%			
												'91	4732		28%			
												'99	4360		53%			
Chrysothamnus viscidiflorus viscidiflorus																		
S	85	2	-	-	-	-	-	-	-	-	2	-	-	-	133		2	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	1	-	-	-	-	1	-	-	2	-	-	-	133		2	
	99	4	-	-	1	-	-	-	-	-	5	-	-	-	100		5	
M	85	11	-	-	-	-	-	-	-	-	11	-	-	-	733	5 4	11	
	91	-	-	-	-	-	-	2	-	-	2	-	-	-	133	5 6	2	
	99	52	-	-	1	-	-	-	-	-	53	-	-	-	1060	8 10	53	
D	85	5	-	-	-	-	-	-	-	-	4	-	1	-	333		5	
	91	-	-	1	-	-	-	-	-	-	-	-	-	1	66		1	
	99	-	-	-	2	-	-	1	-	-	3	-	-	-	60		3	
X	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		00%			00%			06%			-69%							
'91		20%			20%			20%			+73%							
'99		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	1066	Dec:	31%			
												'91	332		20%			
												'99	1220		5%			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Coryphantha vivipara																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	1	-	-	-	-	-	-	-	-	-	1	-	-	20	2	4	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	20		-			
Eriogonum corymbosum																		
Y	85	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	1	-	-	-	-	-	-	1	-	-	20			1
M	85	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	
	99	1	-	-	-	-	-	-	-	-	-	1	-	-	20	7	6	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	40		-			
Eriogonum microthecum																		
Y	85	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	91	-	1	-	-	1	-	-	-	-	2	-	-	133			2	
	99	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
M	85	6	-	-	-	-	-	-	-	-	6	-	-	400	7	5	6	
	91	-	1	1	-	1	1	1	-	-	5	-	-	333	5	7	5	
	99	3	1	-	-	-	-	-	-	-	4	-	-	80	4	4	4	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			+14%							
		'91			57%			29%			-83%							
		'99			25%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	400	Dec:	-			
												'91	466		-			
												'99	80		-			



A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Gutierrezia sarothrae																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	1	-	-	-	-	-	-	-	-	-	1	-	-	20	3	7	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	20		-			
Leptodactylon pungens																		
Y	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	99	-	-	-	2	-	-	-	-	-	2	-	-	-	40			2
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	27	-	-	1	-	-	-	-	-	28	-	-	-	560	6	7	28
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	600		-			
Opuntia spp.																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	1	-	-	-	-	-	-	-	-	1	-	-	-	20	5	13	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	20		-			
Symphoricarpos oreophilus																		
Y	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	91	-	-	-	-	-	-	1	-	-	1	-	-	-	66			1
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	66		-			
												'99	0		-			